UNITED STATES PATENT AND TRADEMARK OFFICE
DOCUMENT CLASSIFICATION BARCODE SHEET

CATEGORY:

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ADDRESS
CONTACT IF FOUND:

09/673647

526 Rec'd PCT/PTO 31 OCT 2000

FORM PTO-1390 (Modified) (REV 5-93) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTORNEY'S DOCKET NUMBER
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371		016886/0179
		U.S APPLICATION NO. (If known, see 37 C.F R. 1.5) Unassigned
INTERNATIONAL APPLICATION NO. **PCT/JP00/01369**	INTERNATIONAL FILING DATE **7/March/2000**	PRIORITY DATE CLAIMED **10/March/1999**
TITLE OF INVENTION **MOBILE TURRET SYSTEM**		
APPLICANT(S) FOR DO/EO/US Katsushi NIHEI, Yasuyuki KOKUBUN and Oliver NAGASE		

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a FIRST submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).
4. ☐ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
   - ☐ is transmitted herewith (required only if not transmitted by the International Bureau).
   - ☒ has been transmitted by the International Bureau.
   - ☐ is not required, as the application was filed in the United States Receiving Office (RO/US)
6. ☒ A copy of the translation of the International Application into English (35 U.S.C. 371(c)(2)).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
   - ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
   - ☐ have been transmitted by the International Bureau.
   - ☐ have not been made; however, the time limit for making such amendments has NOT expired.
   - ☒ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11. to 16. below concern other document(s) or information included:

11. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☒ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A FIRST preliminary amendment.
    ☐ A SECOND or SUBSEQUENT preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☐ Other items or information:

526 Rec'd PCT/PTO 31 OCT 2000

U.S. APPLICATION NO. (If Known, see 37 C.F.R. 1.5)	INTERNATIONAL APPLICATION NO.	ATTORNEY'S DOCKET NUMBER
Unassigned 09/67/3647	PCT/JP00/01369	016886/0179

17. ☒ The following fees are submitted:	CALCULATIONS	PTO USE ONLY
Basic National Fee (37 CFR 1.492(a)(1)-(5): Search Report has been prepared by the EPO or JPO.....$860.00		
International preliminary examination fee paid to USPTO (37 CFR 1.482).....$690.00		
No international preliminary examination fee paid to USPTO (37 CFR 1.482) but international search fee paid to USPTO (37 CFR 1.445(a)(2).....$710.00		
Neither international preliminary examination fee (37 CFR 1.482) nor International search fee (37 CFR 1.445(a)(2)) paid to USPTO.....$1,000.00		
International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(2)-(4).....$100.00		
ENTER APPROPRIATE BASIC FEE AMOUNT =	$860.00	
Surcharge of $130.00 for furnishing the oath or declaration later than 20 Months from the earliest claimed priority date (37 CFR 1.492(e))		

Claims	Number Filed		Included in Basic Fee		Extra Claims		Rate		
Total Claims	4	-	20	=	0	×	$18.00	$0.00	
Independent Claims	1	-	3	=	0	×	$80.00	$0.00	
Multiple dependent claim(s) (if applicable)							$270.00		
TOTAL OF ABOVE CALCULATIONS =								$860.00	
Reduction by ½ for filing by small entity, if applicable. Verified Small Entity statement must also be filed. (Note 37 CFR 1.9, 1.27, 1.28).								$0.00	
SUBTOTAL =								$860.00	
Processing fee of $130.00 for furnishing English translation later the 20 months from the earliest claimed priority date (37 CFR 1.492(f). +									
TOTAL NATIONAL FEE =								$860.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). $40.00 per property +								$40.00	
TOTAL FEES ENCLOSED =								**$900.00**	

				Amount to be: refunded	$
				charged	$

a. ☒ A check in the amount of **$900.00** to cover the above fees is enclosed.

b. ☐ Please charge my Deposit Account No. 19-0741 in the amount of $0.00 to the above fees. A duplicate copy of this sheet is enclosed.

c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 19-0741. A duplicate copy of this sheet is enclosed.

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

Foley & Lardner
Washington Harbour
3000 K Street, N.W., Suite 500
Washington, D.C. 20007-5109
October 31, 2000

SIGNATURE 34371 Glenn Law

NAME RICHARD L. SCHWAAB

REGISTRATION NUMBER 25,479

Atty. Dkt. No. 016886/0179

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Katsushi NIHEI et al.

Title: MOBILE TURRET SYSTEM

Appl. No.: Unassigned

Filing Date: October 31, 2000

Examiner: Unassigned

Art Unit: Unassigned

PRELIMINARY AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

Prior to examination of the present Application, Applicants respectfully request that the above-identified application be amended as follows:

IN THE CLAIMS:

Claim 3, line 1, delete "or 2".

Please add the new claim:

--4. A mobile turret system according to claim 2, wherein said mobile turret system performs control (operation system) of a virtual turret and/or control (voice system) of a CTI device by means of connection and control by remote computing.--

Atty. Dkt. No. 016886/0179

REMARKS

Applicants respectfully request that the foregoing amendment to claim 3 and the new claim 4, be entered in order to avoid this application incurring a surcharge for the presence of one or more multiple dependent claims.

Respectfully submitted,

Date October 31, 2000

By [signature] 34371

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MOBILE TURRET SYSTEM

BACKGROUND OF THE INVENTION

1. Field of the Invention (TECHNICAL FIELD)

The present invention relates to a mobile turret system applied to a dealing communication system to be used for performing a financial transaction in a financial institution such as a bank, a securities company and the like. Describing in more detail, the present invention relates to a mobile turret system which connects itself by remote computing to a communication terminal primarily composed of a general-purpose personal computer introduced in recent years (communication stand; hereinafter referred to as a virtual turret), and controls an operation system of the virtual turret and a voice system of a CTI (computer telephony integration) device.

2. Related Art (BACKGROUND ART)

Up to now, a mobile turret system has been used as communication terminal equipment in a dealing communication system, for example. Such communication terminal equipment in a dealing communication system has used dedicated communication terminal equipment and dedicated operating software.

However, a mobile turret system shown in the above-mentioned conventional example brings a problem that it is not possible to harmonize and make the respective communication terminals cooperate with one another by means of connection by remote computing which is a feature of it, and to provide to a user an environment which makes the user feel as if he/she is seated at a communication terminal equipment when he/she is distant from the communication terminal equipment.

An object of the present invention is to provide a mobile turret system to provide such an environment of higher fidelity that makes a user feel as if he/she operates and converses as being actually seated at a virtual turret.

SUMMARY OF THE INVENTION (DISCLOSURE OF THE INVENTION)

In order to attain such an object, a mobile turret system of the present invention is characterized by connecting a virtual turret side primarily composed of a general-purpose personal computer and a mobile turret side composed of a computer other than the virtual turret in a dealing communication system to each other by means of remote computing, and controlling the virtual turret so as to make a user feel as if he/she operates as being actually seated at the virtual turret by operating the mobile turret.

And the above-mentioned connection by remote computing may adopt a method comprising either one of a telephone line connection, a network connection and a cable connection.

Further, the above-mentioned mobile turret system may perform control of a virtual turret (operation system) and/or control of a CTI device (voice system) by means of connection and control by remote computing.

According to a mobile turret system of the present invention, it is possible to perform operation of a control system of a virtual turret and control of a voice system of a CTI device from a mobile turret system by using a general-purpose operating software on the virtual turret composed on the basis of a general-purpose personal computer and using connection by remote computing and mobile

computing, by a fact that the virtual turret side and the mobile turret side are connected to each other by remote computing.

Therefore, it is possible to provide to a mobile turret system user an environment, which makes the user feel as if he/she operates and converses as being seated at a virtual turret.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 shows a composition example of a mobile turret system (telephone line connection) remote computing system which an embodiment of a mobile turret system of the present invention is applied to.

Figure 2 shows a composition example of a mobile turret system (telephone line connection) remote computing-virtual turret system.

Figure 3 shows a composition example of a mobile turret system (telephone line connection) remote computing-mobile turret system.

Figure 4 shows a composition example of a mobile turret system (network connection) remote computing system.

Figure 5 shows a composition example of a mobile turret system (cable connection) remote computing system.

Figure 6 shows a virtual turret idling screen.

Figure 7 shows a mobile turret system flow chart 1.

Figure 8 shows a mobile turret remote computing system-initiating screen.

Figure 9 shows a mobile turret-virtual turret remote computing connection screen.

Figure 10 shows a mobile turret voice line connection screen.

Figure 11 shows a mobile turret-virtual turret specifying communication screen.

Figure 12 shows a mobile turret-virtual turret TEN-KEY communication screen.

Figure 13 shows a mobile turret system flow chart 2.

Figure 14 shows a mobile turret system flow chart 3.

Figure 15 shows a mobile turret system communication end screen.

Figure 16 shows a mobile turret system remote computing end screen.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS (BEST MODE FOR CARRYING OUT THE INVENTION)

An embodiment of a mobile turret system according to the present invention is described in detail with reference to the accompanying drawings in the following. Referring to Figure 1, an embodiment of a mobile turret system of the present invention is shown.

Figure 1 shows a composition example of a mobile turret system (telephone line connection) remote computing system, Figure 2 shows a composition example of a mobile turret system (telephone line connection) remote computing-virtual turret, Figure 3 shows a composition example of a mobile turret system (telephone line connection) remote computing-mobile turret, Figure 4 shows a composition example of a mobile turret system (network connection) remote computing system, and Figure 5 shows a composition example of a mobile turret system (cable connection) remote computing system.

A mobile turret system, as shown in Figures 1, 4 and 5, is a system in which a virtual turret side 1 composed of a host computer and a mobile turret side 2composed of another computer of a client are connected to each other by means of

remote computing. This system can make a client perform a control combined with a voice communication from a mobile turret so that he/she feels as if he/she is seated at and operates actually a host computer 11 as its applicable virtual turret.

As shown in Figures 1, 4 and 5, as a connection method for performing a remote computing operation, there are a telephone line connection, a network connection, a cable connection and the like. A method for using as a composition example a mobile turret system using a voice communication, connected by remote computing by means of a telephone line connection, which is called a public network 3, as shown in Figures 1, 2 and 3 is described. First, a composition example of each component of a mobile turret system and conditions for using it are described below.

(Composition example of a mobile turret system-virtual turret system)

A virtual turret is communication terminal equipment (simply called a "communication stand" also) of a dealing communication system used for performing a financial transaction in a financial institution such as a bank, a securities company and the like, as described above. The virtual turret is typically a communication stand of a dealing system based on a general-purpose personal computer and a general-purpose operating system.

An LCU (line control unit) to control this virtual turret is a line control unit. A virtual turret and an LCU are connected to each other through a dealing communication stand line circuit (connection C in Figure 1). Beyond the LCU, which is a line control unit (connection D in Figure 1), it is connected to the opposite party through various lines such as a public network, a PBX station, a broker line, a hot line and the like. An example of requirements for a more concrete composition of a virtual turret based on Figures 1 and 2 is enumerated in the following.

* A general-purpose personal computer is used.
* An environment in which a modem is connected and operable is composed.
* An environment in which a dealing communication stand application device forming a virtual turret and a dealing communication stand application software is provided and are operable is composed.
* An environment in which a CTI application device is provided and is operable is composed. The CTI application device is provided with a keyboard having a telephone function built in it and connects connection A, a handset A and line C to one another (see Figure 1). And a virtual turret is provided with CTI application software, and the virtual turret and the CTI application device operate in conjunction with each other.
* An environment in which a general-purpose remote computing application software is provided and can operate in a host state on the virtual turret is composed.
* An environment in which a mouse or a device corresponding to it is operable is composed.
* Two telephone lines are used (lines C and D in Figure 1).

Two telephone lines are used as a mobile turret system-virtual turret. In detail, the two lines are a circuit for performing a remote computing operation from a virtual turret through a modem, and a circuit for connecting to a CTI application device and performing a voice communication.

An example of composition requirements for a mobile turret system-mobile turret based on Figures 1 and 3 is enumerated in the following.

* A general-purpose notebook-sized personal computer is used.
* An environment in which a modem is connected and operable is composed.
* An environment in which a general-purpose remote computing application software is installed and can operate in a client state is composed.
* An environment in which a mouse or a device corresponding to it is operable is composed.
* A general-purpose telephone is used.
* Two telephone lines are used (lines A and B in Figure 1).

Two telephone lines are used as a mobile turret system-mobile turret. In detail, the two lines are a circuit for performing a remote computing operation by means of connection through a modem from a mobile turret, and a circuit for connecting to a CTI application device and performing a voice communication.

How to use a mobile turret system is described. First, it is confirmed that a virtual turret is in the following state.

* A virtual turret idles in an operable state.
* A remote computing application idles in a host state on a screen of a virtual turret.
* A CTI application device and CTI application software idle in an operable state.

The display of a virtual turret in the above-mentioned initial state has a screen composition as shown in a virtual turret idling screen of Figure 6.

A mobile turret system flow chart 1 is described with reference to Figure 7.

In step S1, a remote computing application is initiated in a client state on a mobile turret. In this case, a virtual turret is set as a host and a mobile turret is set as a client as shown in a mobile turret system remote computing initiation screen of Figure 8.

In step S2, a user accesses from the mobile turret the remote computing application waiting for a host state on the virtual turret. For this, as shown in Figure 8, the user displays a (client) remote computing application telephone number input window, inputs a telephone number for connecting line D, modem B and the virtual turret to one another shown in Figure 1, using a mouse and keyboard of the mobile turret, and then clicks the OK button by the mouse. In case of performing a wrong input, the user clicks the CANCEL (cancel) button and performs the above input operation again.

In step S3, a virtual turret screen is displayed on the mobile turret like a mobile turret-virtual turret remote computing connection screen shown in Figure 9. This state shows a state where modem A, line B, a public network, a PBX, line D and modem B are connected to one another in Figure 1, and operation by a remote computing connection is possible.

In step S4, the user dials the telephone number of a CTI application device through a telephone of Figure 1. As the result, a voice path from the telephone through line A, the public network, the PBX, line C, the CTI application device and connection A to the handset A comes into a connection state in Figure 1.

In step S5, in case that the line of a CTI application device has been specified in advance on a virtual turret, for example, in case of a CTI (CTI application device line specification) key, a called state indicator is lighted up and a CTI application window is displayed. Figure 10 shows a mobile turret voice line connection screen as a reference example.

In step S6, referring to Figure 10, "Connection" in the CTI application

window is clicked. As the result of this operation, a voice path from the telephone through line A, the public network, the PBX, line C, the CTI application device and connection A to the handset A comes into a connection state in Figure 1.

Steps S7 and S8 are performed referring to a mobile turret-virtual turret specified communication screen of Figure 11. First, in step S7, in case that the opposite parties beyond the virtual turret (handset B, virtual turret, connection C, LCU and connection D in Figure 1) are specified in advance by buttons A to F (Yes in step S7), the button corresponding to a relevant opposite party is clicked in step S8.

Further, steps S7 to S9 are performed referring to a mobile turret-virtual turret TEN-KEY communication screen of Figure 12. In case that the opposite parties beyond the virtual turret (handset B, virtual turret, connection C, LCU and connection D in Figure 1) are not specified (No in step S7), in step S9 the TEN-KEY window is displayed by clicking the TEN-KEY button in the virtual turret window, and a relevant telephone number is inputted.

In step S10, by the operations of the above-described steps S7 to S8 and steps S7 to S9, the telephone, line A, the public network, the PBX, line C, the CTI application device, connection A, handset A, handset B, connection B, the virtual turret, connection C, the LCU and connection D in Figure 1 are connected to one another, and it becomes possible to communicate with the opposite party from the mobile turret telephone through the virtual turret.

(Method in case of changing an opposite party beyond the virtual turret)

A mobile turret system flow chart 2 shown in Figure 13 is described in the following.

In step S11, after end of communication the RLS key in the virtual turret screen (see Figure 11) is clicked. This operation releases a voice connection of handset B, connection B, the virtual turret, connection C, the LCU, connection D and the like.

In steps S12 to S13, in case that the opposite party which the user intends to next communicate with is specified by one of the specifying buttons of the mobile turret (buttons A to F in Figure 11), the button corresponding to the relevant opposite party is clicked.

In steps S12 to S14, in case that the next opposite party has not been specified, the number of the relevant opposite party is inputted in the TEN-KEY window displayed by clicking the TEN-KEY button in the mobile turret screen (see Figure 12).

In step S15, a communication path is connected with the opposite party beyond the virtual turret by the above operation. In case of repeating the communication, the above-described operations of steps S11 to S14 are repeated.

(Method in case that the virtual turret is called by an opposite party)

In case that the virtual turret is called, since the virtual turret performs a called indication (blinks a line key), clicking the blinking line key makes it possible to communicate with the opposite party. In order to end the communication, the communication is ended by clicking the RLS (release) key.

(Method in case of ending a communication and a remote computing operation)

In Figure 14, a mobile turret system flow chart 3 is described. A communication end operation is performed using a mobile turret communication end screen of Figure 15.

In step S21, a CTI application window is displayed.

In step S22, the Disconnection button in the CTI application window is

clicked. The above operation ends the connection to the CTI application device (see Figure 1), and the connection between handset A, connection A, the CTI application device and line C is disconnected.

In the next step S23, the handset of the mobile turret side is off-hooked (see Figure 1), and the communication of the mobile turret is ended. A remote computing end operation is performed referring a mobile turret system computing end screen of Figure 16.

In step S24, a (client) remote computing window is displayed.

In step S25, the Disconnection button in the (client) remote computing window is clicked. The above operation disconnects the connection between the mobile turret, modem A, the public network, the PBX, line D, modem B and the virtual turret, and the remote computing operation is ended.

The advent of a virtual turret based on a general-purpose personal computer and the mounting and driving of a general-purpose operating software make it possible for a mobile turret system to perform operation of a control system of a virtual turret and control of a voice system of a CTI device by means of connection by remote computing. This makes it possible to provide to a user an environment in which the user can use a function of a virtual turret also in a mobile turret with the same feeling as a feeling which the user has when being seated at the virtual turret.

According to the above-mentioned embodiment, a connection by remote computing, said connection being optimal to an environment where a mobile turret is used, is selected from various kinds of connections by remote computing such as a telephone line connection, a network connection (WAN or LAN connection), a cable connection and the like between a virtual turret and a mobile turret.

In case of a telephone line connection in a mobile turret system, it is possible to access a virtual turret from a remote site such as a user's home, the destination of its business trip or the like, and in case of a network connection, it is possible to access a virtual turret from a different floor in an environment such as an office and the like in which a network environment has been built.

Describing in more detail, a system is composed which provides to a user an environment which makes it possible for the user to use a mobile turret system with the same feeling as a feeling when being seated at a virtual turret when the user of the virtual turret of an office uses the mobile turret system at such a place distant from the virtual turret as the user's home, the destination of its business trip, a different floor and the like.

Therefore, the advent of a virtual turret based on a general-purpose personal computer and the mounting and driving of a general-purpose operating software make it possible for a mobile turret system to perform operation of a control system of a virtual turret and control of a voice system of a CTI device by means of connection by remote computing. This makes it possible to provide to a use ran environment in which the user can use a function of a virtual turret also in a mobile turret with the same feeling as a feeling when being seated at the virtual turret.

The above-mentioned embodiment is one example of preferred embodiments of the present invention. The present invention is not limited to this, but various variations can be performed within the scope of the present invention without departing from the gist of the present invention.

As apparently known from the above description, in a mobile turret system of the present invention, a virtual turret side and a mobile turret side are

connected to each other by remote computing.

Accordingly, by using a general-purpose operating software on a virtual turret based on a general-purpose personal computer, it is possible to perform operation of a control system of a virtual turret and control of a voice system of CTI device from a mobile turret system by means of connection by remote computing and mobile computing.

Therefore, it is possible to provide to a mobile turret system user an environment in which the user can feel as if he/she is actually performing operation and conversation being seated at a virtual turret.

Various kinds of connections by remote computing between a virtual turret and a mobile turret can include a telephone line connection, a network connection (WAN or LAN connection) and a cable connection, and it is possible to provide to a user a connection by remote computing, said connection being optimal to an environment where a mobile turret is used.

INDUSTRIAL APPLICABILITY

As described above, a mobile turret system according to the present invention is useful for a mobile turret system applied to a dealing communication system used for performing a financial transaction in a financial institution such as a bank, a securities company and the like, and is adaptive to providing an environment which makes it possible to give a user the same feeling of use as a feeling when being seated at a communication terminal when the user is distant from the communication terminal by attaining harmonious combination and cooperation between the respective apparatuses by means of connection by remote computing which this mobile turret system is characterized by.

WHAT IS CLAIMED IS:

1. A mobile turret system for connecting a virtual turret side composed on the basis of a general-purpose personal computer and a mobile turret side composed of a computer other than said virtual turret in a dealing communication system to each other by remote computing, and controlling said virtual turret by operating it through said mobile turret as if a user is seated at and operates the said virtual turret.

2. A mobile turret system according to claim 1, wherein said connection by remote computing comprises either one of a telephone line connection, a network connection and a cable connection.

3. A mobile turret system according to claim 1 or 2, wherein said mobile turret system performs control (operation system) of a virtual turret and/or control (voice system) of a CTI device by means of connection and control by remote computing.

ABSTRACT OF THE DISCLOSURE

A virtual turret side 1 is composed on the basis of a general-purpose personal computer 11 in a dealing communication system. A mobile turret side 2 is composed of another computer 21 and performs connection (3) between the virtual turret and the mobile turret by remote computing. This composition uses a general-purpose operating software on a virtual turret based on a general-purpose personal computer and makes it possible to perform operation of a control system of a virtual turret and control of a voice system of a CTI device from the mobile turret system by means of connection by remote computing and mobile computing.

FIG.1

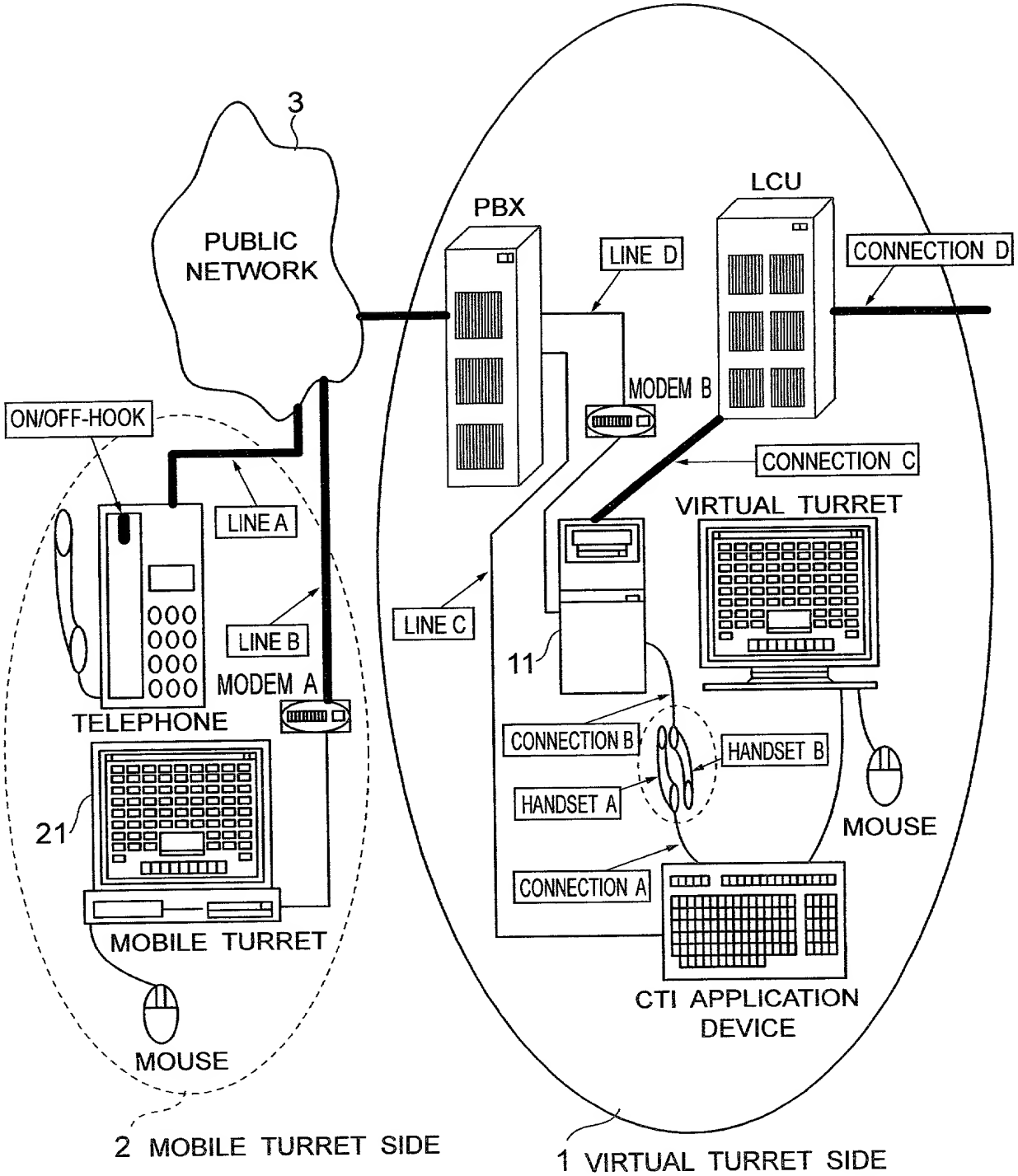

3
PUBLIC NETWORK
PBX
LCU
LINE D
CONNECTION D
MODEM B
ON/OFF-HOOK
CONNECTION C
VIRTUAL TURRET
LINE A
LINE C
LINE B
11
MODEM A
TELEPHONE
CONNECTION B
HANDSET B
HANDSET A
21
MOUSE
CONNECTION A
MOBILE TURRET
CTI APPLICATION DEVICE
MOUSE
2 MOBILE TURRET SIDE
1 VIRTUAL TURRET SIDE

FIG.2

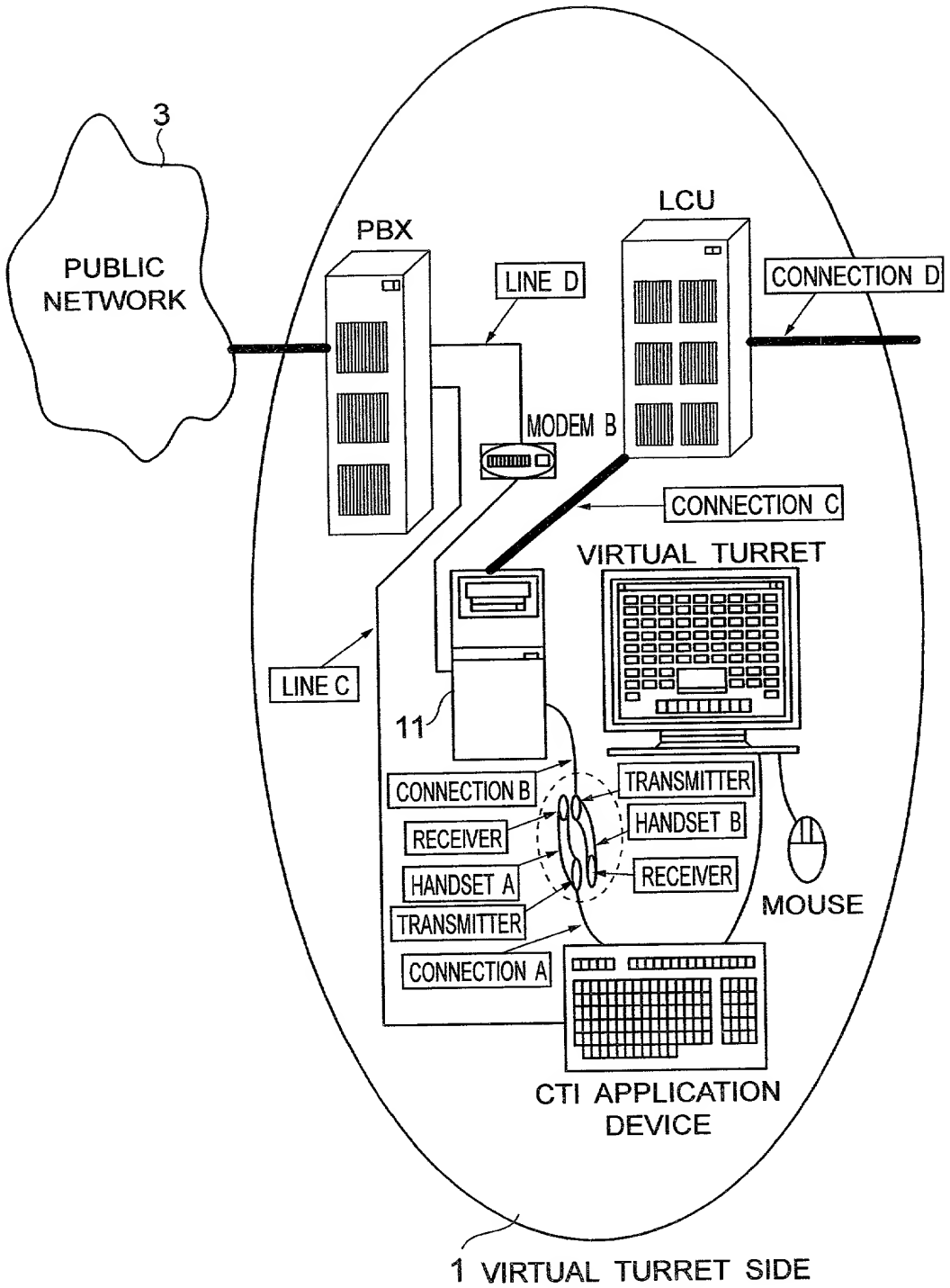

3
PUBLIC NETWORK
PBX
LCU
LINE D
CONNECTION D
MODEM B
CONNECTION C
VIRTUAL TURRET
LINE C
11
CONNECTION B
RECEIVER
HANDSET A
TRANSMITTER
CONNECTION A
TRANSMITTER
HANDSET B
RECEIVER
MOUSE
CTI APPLICATION DEVICE
1 VIRTUAL TURRET SIDE

FIG.3

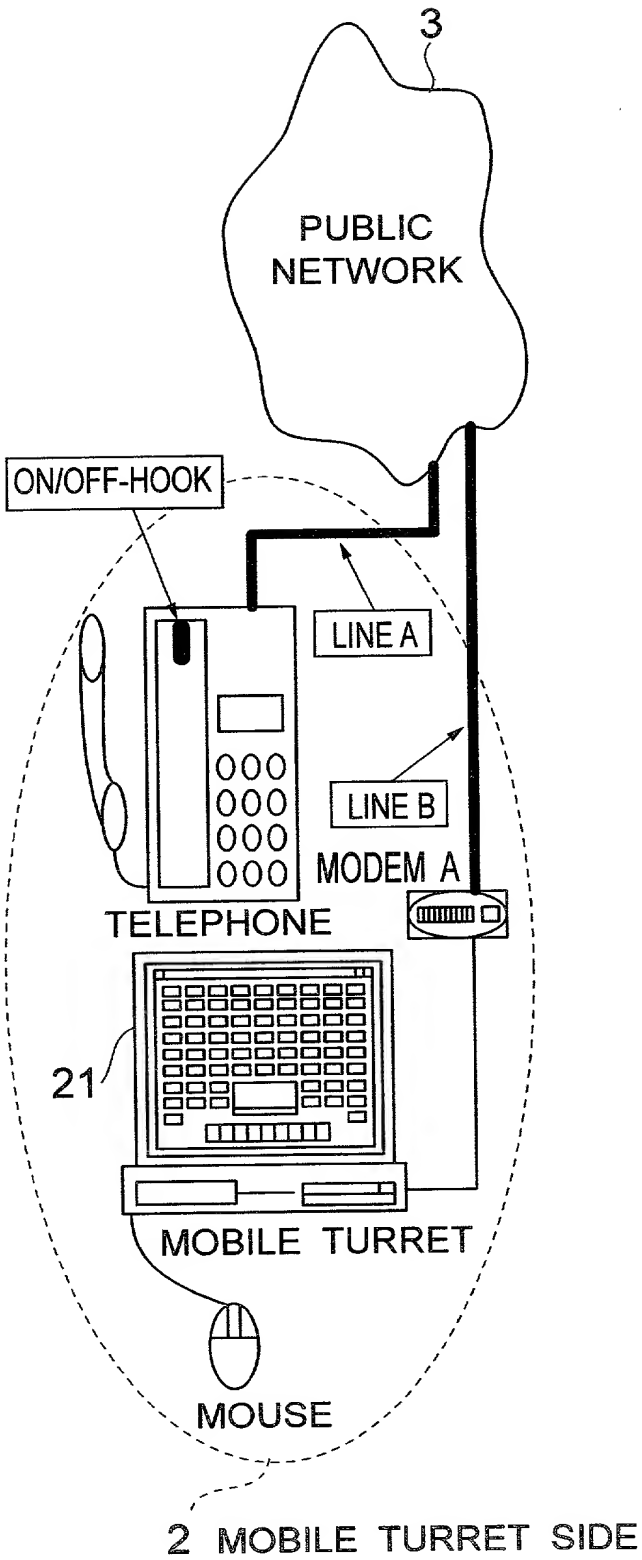

3
PUBLIC NETWORK
ON/OFF-HOOK
LINE A
LINE B
MODEM A
TELEPHONE
21
MOBILE TURRET
MOUSE
2 MOBILE TURRET SIDE

FIG.4

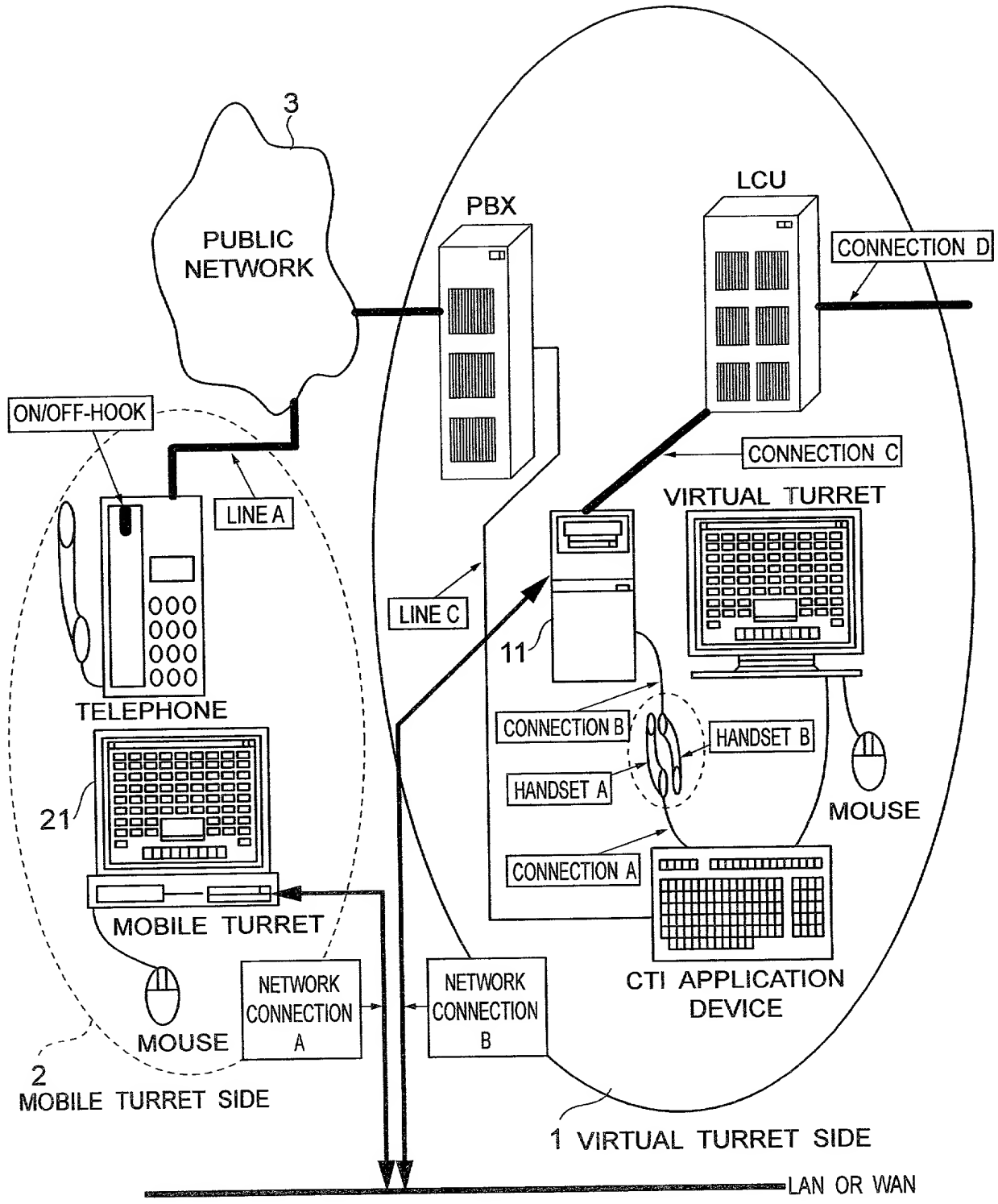

3
PUBLIC NETWORK
PBX
LCU
CONNECTION D
ON/OFF-HOOK
LINE A
CONNECTION C
VIRTUAL TURRET
LINE C
11
TELEPHONE
CONNECTION B
HANDSET B
HANDSET A
MOUSE
21
CONNECTION A
MOBILE TURRET
CTI APPLICATION DEVICE
NETWORK CONNECTION A
NETWORK CONNECTION B
MOUSE
2
MOBILE TURRET SIDE
1 VIRTUAL TURRET SIDE
LAN OR WAN

FIG.5

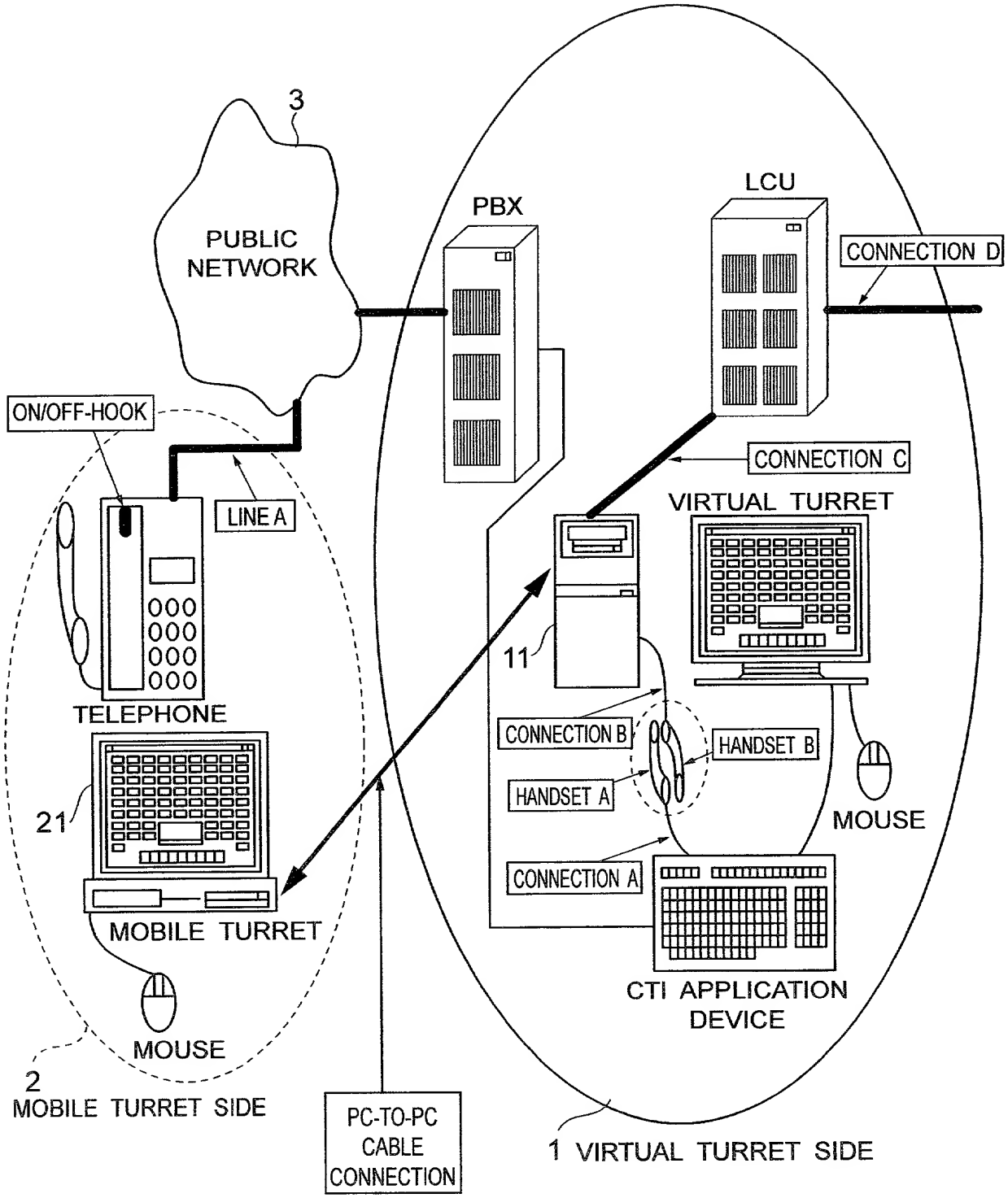

3
PUBLIC NETWORK
PBX
LCU
CONNECTION D
ON/OFF-HOOK
LINE A
CONNECTION C
VIRTUAL TURRET
11
TELEPHONE
CONNECTION B
HANDSET B
HANDSET A
MOUSE
21
CONNECTION A
MOBILE TURRET
CTI APPLICATION DEVICE
MOUSE
2
MOBILE TURRET SIDE
PC-TO-PC CABLE CONNECTION
1 VIRTUAL TURRET SIDE

FIG.6

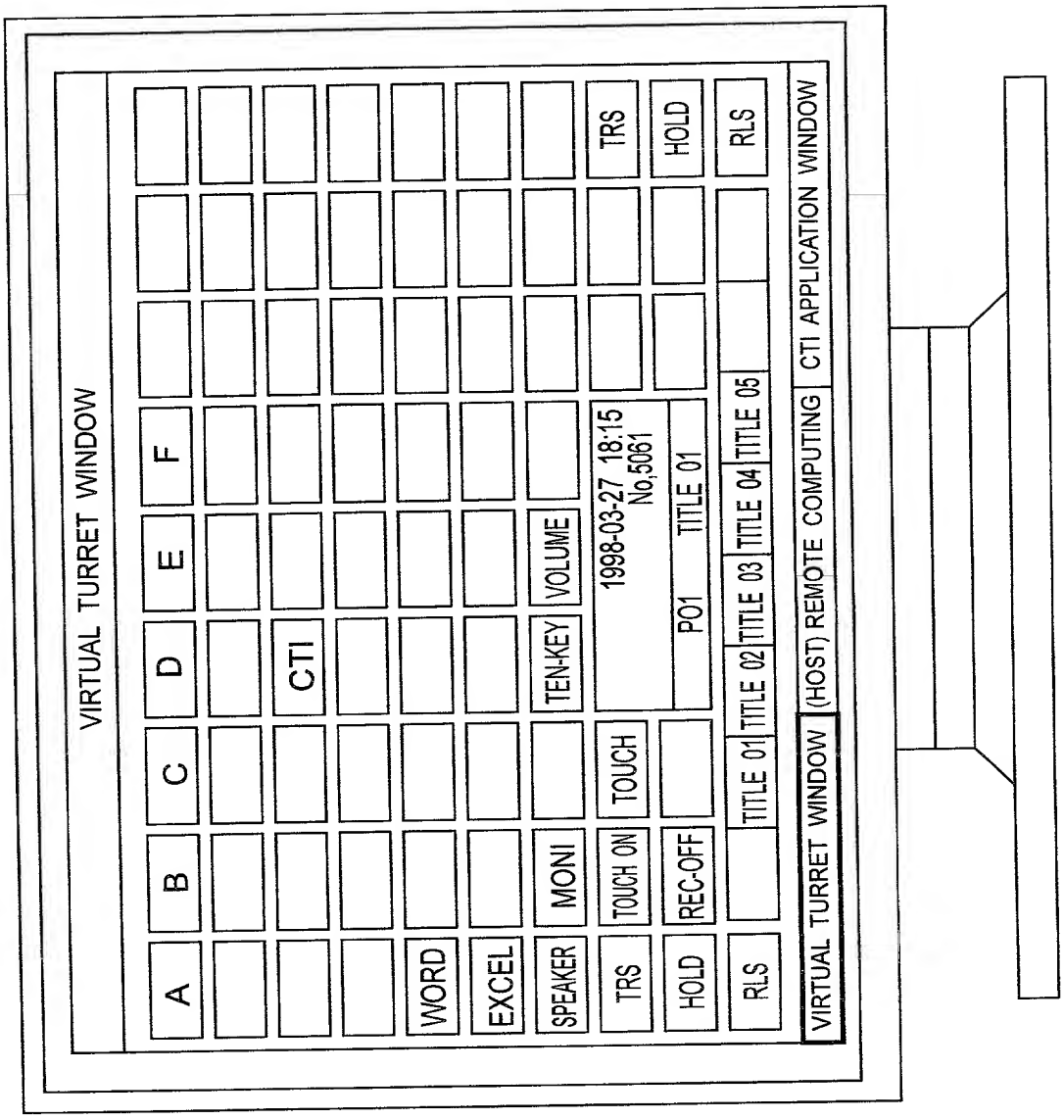

VIRTUAL TURRET WINDOW
A
B
C
D
E
F
WORD
EXCEL
SPEAKER
TRS
HOLD
RLS
MONI
TOUCH ON
REC-OFF
TOUCH
CTI
TEN-KEY
VOLUME
1998-03-27 18:15
No,5061
P01 TITLE 01
TRS
HOLD
RLS
TITLE 01
TITLE 02
TITLE 03
TITLE 04
TITLE 05
VIRTUAL TURRET WINDOW
(HOST) REMOTE COMPUTING
CTI APPLICATION WINDOW

FIG.7

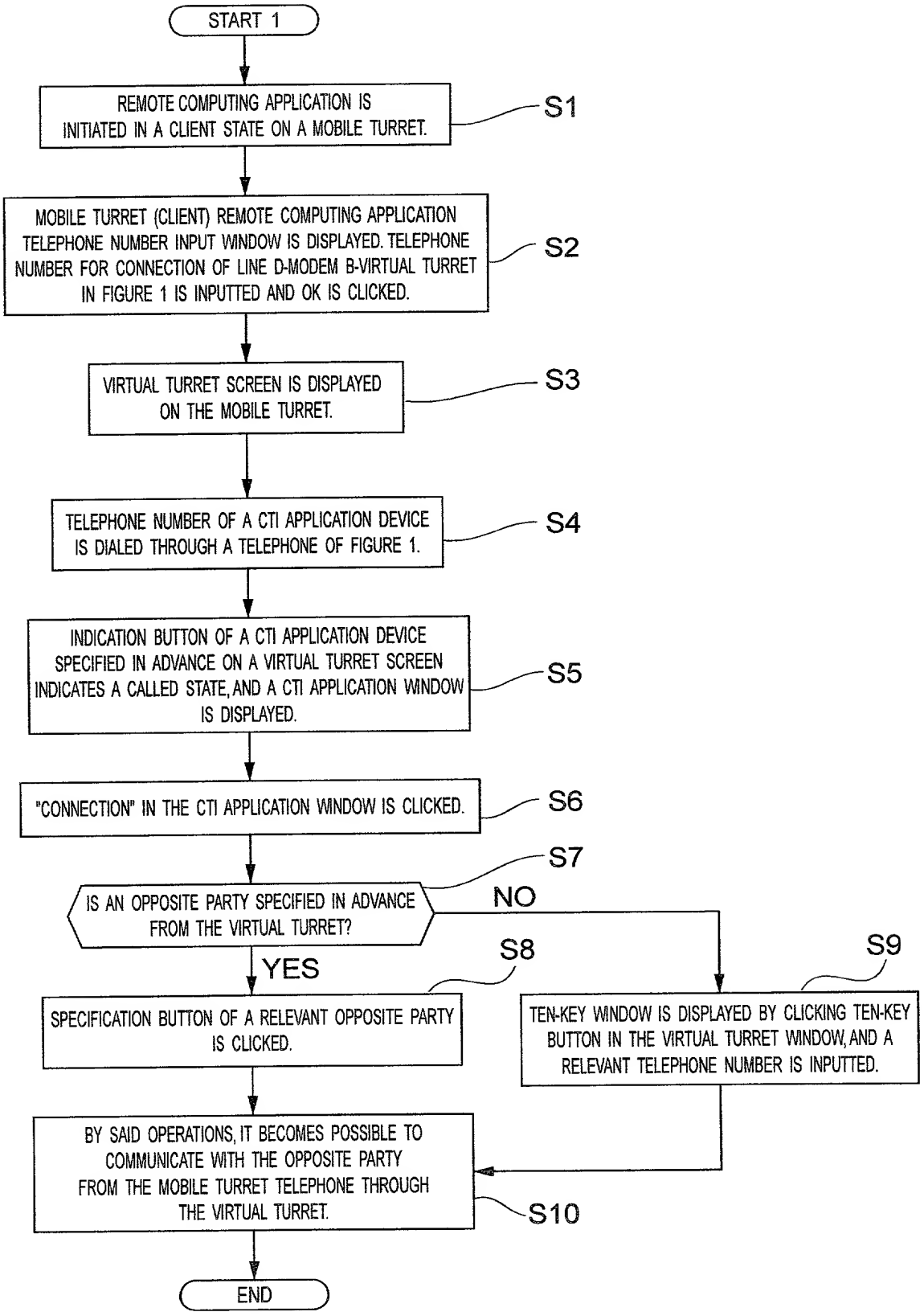

START 1
REMOTE COMPUTING APPLICATION IS INITIATED IN A CLIENT STATE ON A MOBILE TURRET.
S1
MOBILE TURRET (CLIENT) REMOTE COMPUTING APPLICATION TELEPHONE NUMBER INPUT WINDOW IS DISPLAYED. TELEPHONE NUMBER FOR CONNECTION OF LINE D-MODEM B-VIRTUAL TURRET IN FIGURE 1 IS INPUTTED AND OK IS CLICKED.
S2
VIRTUAL TURRET SCREEN IS DISPLAYED ON THE MOBILE TURRET.
S3
TELEPHONE NUMBER OF A CTI APPLICATION DEVICE IS DIALED THROUGH A TELEPHONE OF FIGURE 1.
S4
INDICATION BUTTON OF A CTI APPLICATION DEVICE SPECIFIED IN ADVANCE ON A VIRTUAL TURRET SCREEN INDICATES A CALLED STATE, AND A CTI APPLICATION WINDOW IS DISPLAYED.
S5
"CONNECTION" IN THE CTI APPLICATION WINDOW IS CLICKED.
S6
S7
IS AN OPPOSITE PARTY SPECIFIED IN ADVANCE FROM THE VIRTUAL TURRET?
NO
YES
S8
SPECIFICATION BUTTON OF A RELEVANT OPPOSITE PARTY IS CLICKED.
S9
TEN-KEY WINDOW IS DISPLAYED BY CLICKING TEN-KEY BUTTON IN THE VIRTUAL TURRET WINDOW, AND A RELEVANT TELEPHONE NUMBER IS INPUTTED.
BY SAID OPERATIONS, IT BECOMES POSSIBLE TO COMMUNICATE WITH THE OPPOSITE PARTY FROM THE MOBILE TURRET TELEPHONE THROUGH THE VIRTUAL TURRET.
S10
END

FIG.8

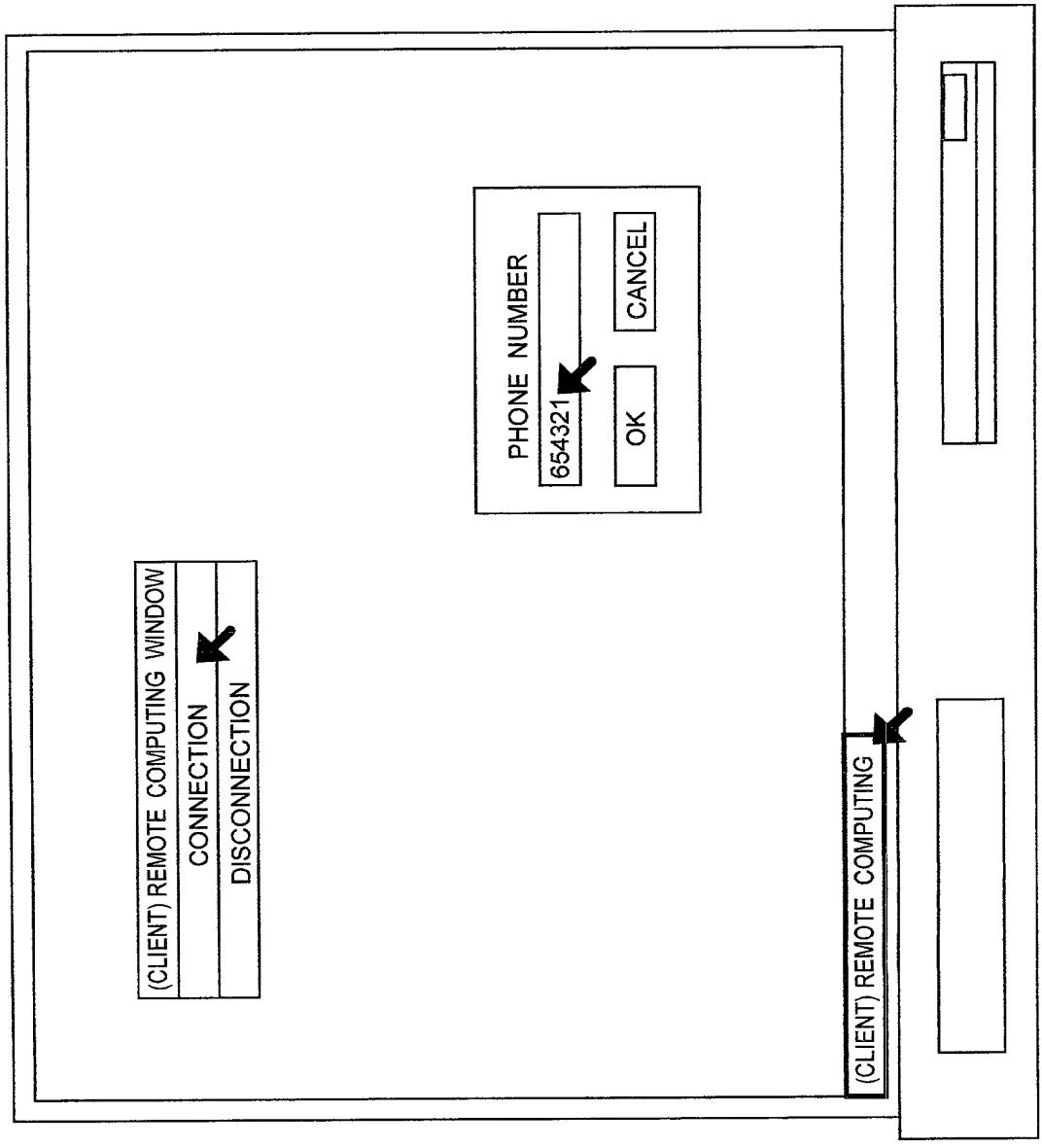

(CLIENT) REMOTE COMPUTING WINDOW
CONNECTION
DISCONNECTION
PHONE NUMBER
654321
OK
CANCEL
(CLIENT) REMOTE COMPUTING

FIG.9

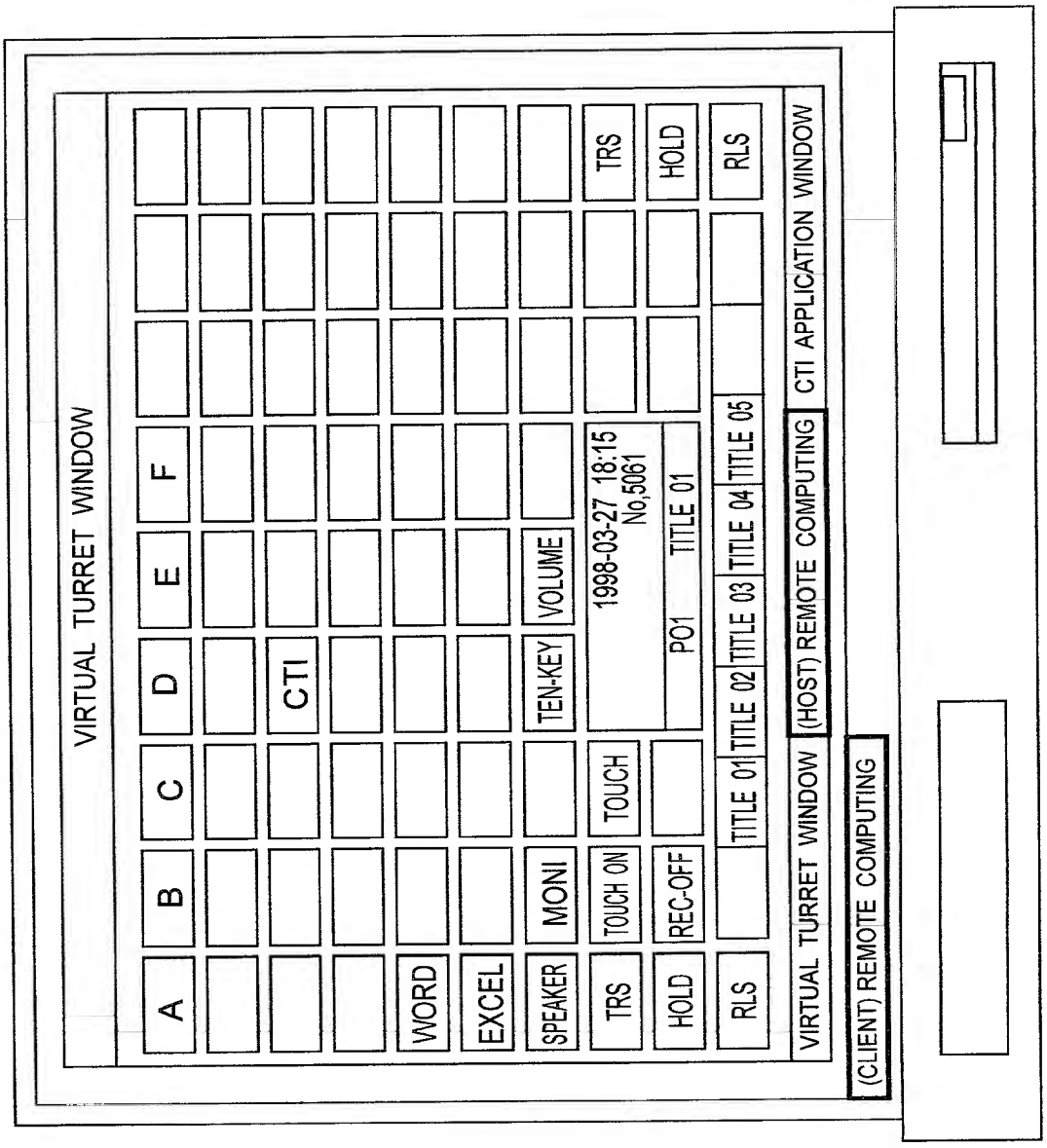

VIRTUAL TURRET WINDOW
A
B
C
D
E
F
WORD
EXCEL
SPEAKER
MONI
TEN-KEY
VOLUME
TRS
TOUCH ON
TOUCH
1998-03-27 18:15
No,5061
TRS
HOLD
REC-OFF
PO1
TITLE 01
HOLD
RLS
TITLE 01
TITLE 02
TITLE 03
TITLE 04
TITLE 05
RLS
VIRTUAL TURRET WINDOW
(HOST) REMOTE COMPUTING
CTI APPLICATION WINDOW
(CLIENT) REMOTE COMPUTING

FIG.10

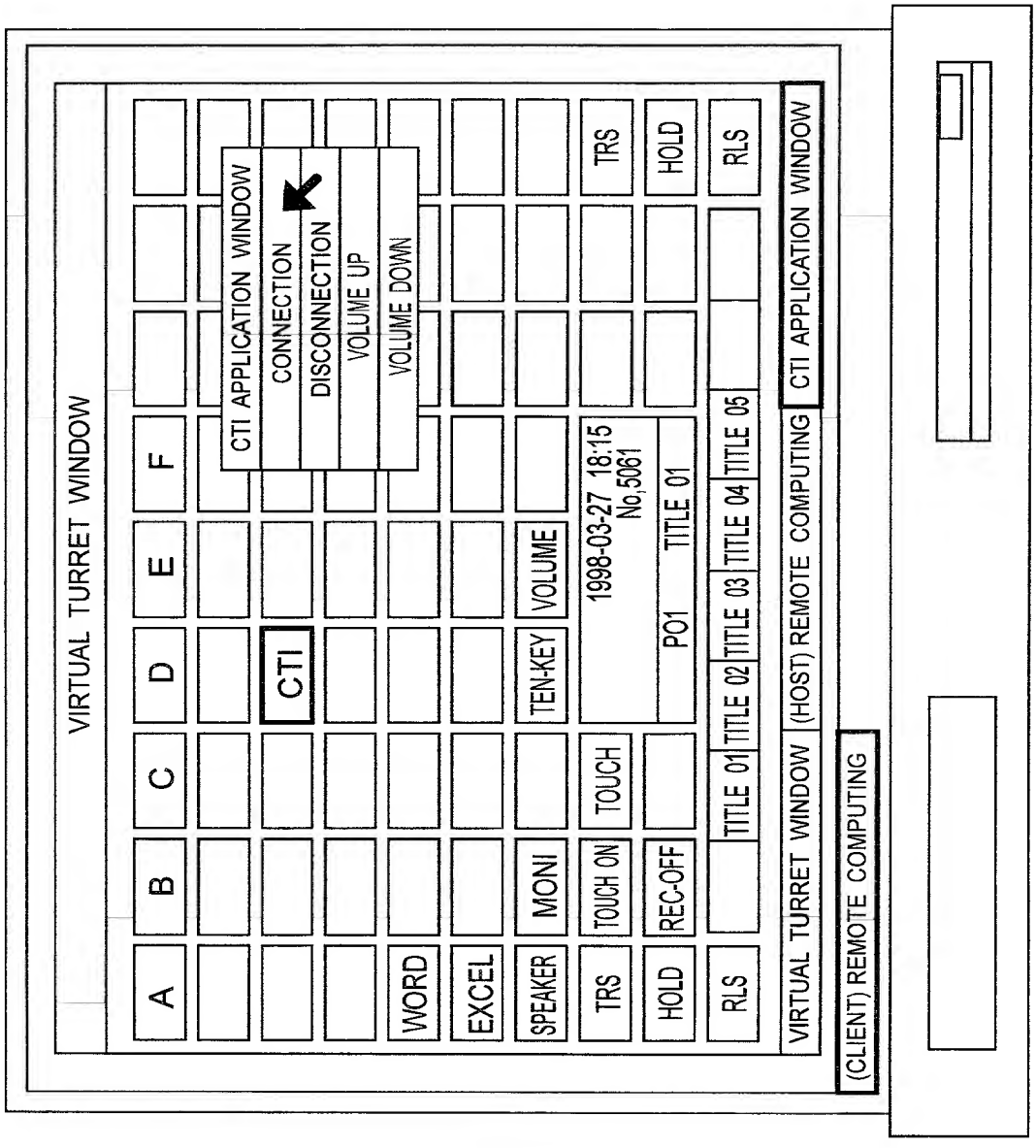

VIRTUAL TURRET WINDOW
A
B
C
D
E
F
CTI APPLICATION WINDOW
CONNECTION
DISCONNECTION
VOLUME UP
VOLUME DOWN
CTI
WORD
EXCEL
SPEAKER
MONI
TEN-KEY
VOLUME
TRS
TOUCH ON
TOUCH
1998-03-27 18:15
No.5061
TRS
HOLD
REC-OFF
P01 TITLE 01
HOLD
RLS
TITLE 01
TITLE 02
TITLE 03
TITLE 04
TITLE 05
RLS
VIRTUAL TURRET WINDOW
(HOST) REMOTE COMPUTING
CTI APPLICATION WINDOW
(CLIENT) REMOTE COMPUTING

FIG.11

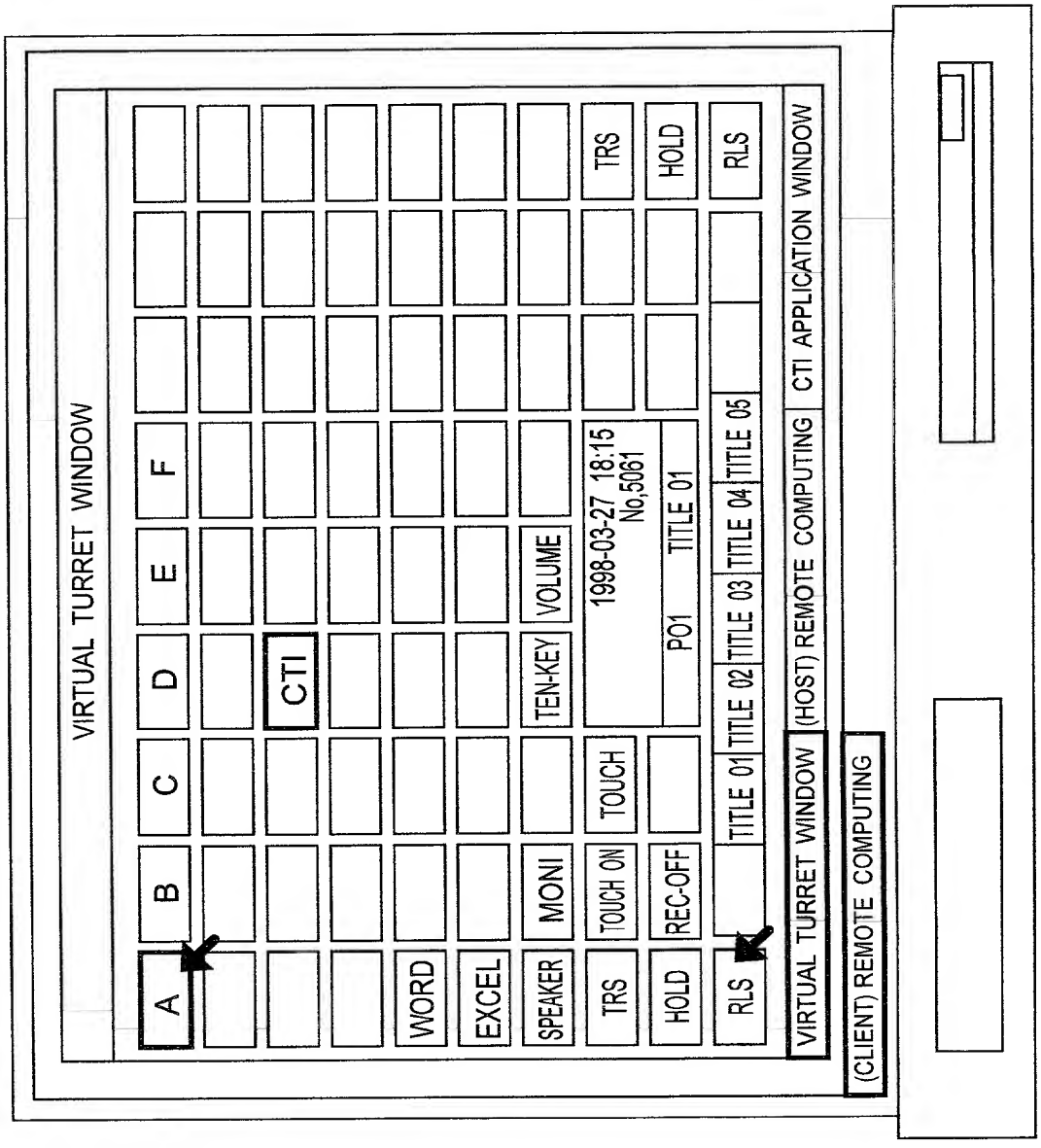

VIRTUAL TURRET WINDOW
A
B
C
D
E
F
CTI
WORD
EXCEL
SPEAKER
TRS
HOLD
RLS
MONI
TOUCH ON
REC-OFF
TOUCH
TEN-KEY
VOLUME
1998-03-27 18:15
No,5061
P01 TITLE 01
TRS
HOLD
RLS
TITLE 01
TITLE 02
TITLE 03
TITLE 04
TITLE 05
VIRTUAL TURRET WINDOW
(HOST) REMOTE COMPUTING
CTI APPLICATION WINDOW
(CLIENT) REMOTE COMPUTING

FIG.12

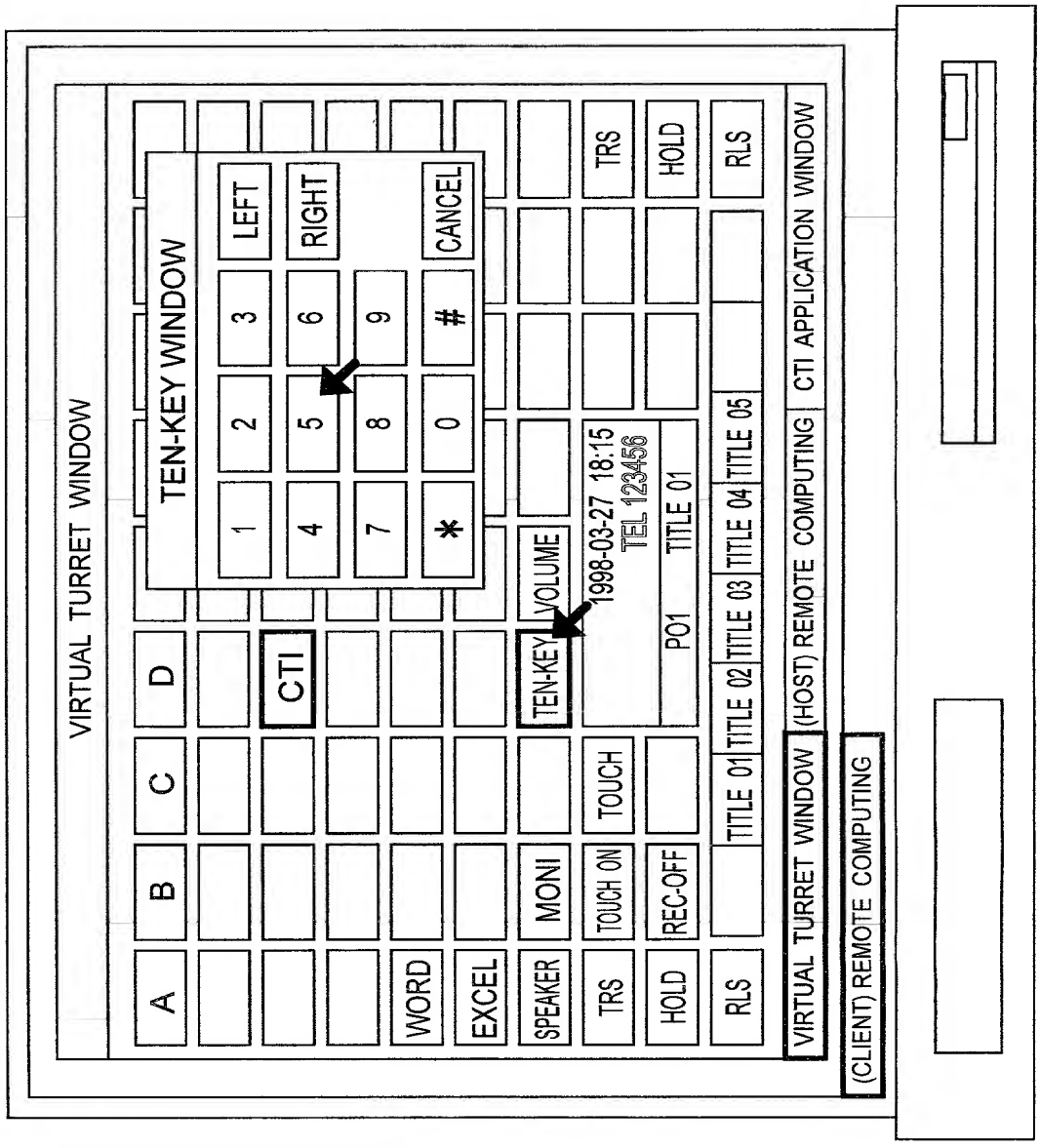

VIRTUAL TURRET WINDOW
A
B
C
D
TEN-KEY WINDOW
1
2
3
LEFT
4
5
6
RIGHT
7
8
9
CANCEL
*
0
#
CTI
WORD
EXCEL
SPEAKER
MONI
TEN-KEY
VOLUME
TRS
TOUCH ON
TOUCH
1998-03-27 18:15
TEL 123456
HOLD
REC-OFF
PO1
TITLE 01
RLS
TITLE 01
TITLE 02
TITLE 03
TITLE 04
TITLE 05
TRS
HOLD
RLS
VIRTUAL TURRET WINDOW
(HOST) REMOTE COMPUTING
CTI APPLICATION WINDOW
(CLIENT) REMOTE COMPUTING

FIG.13

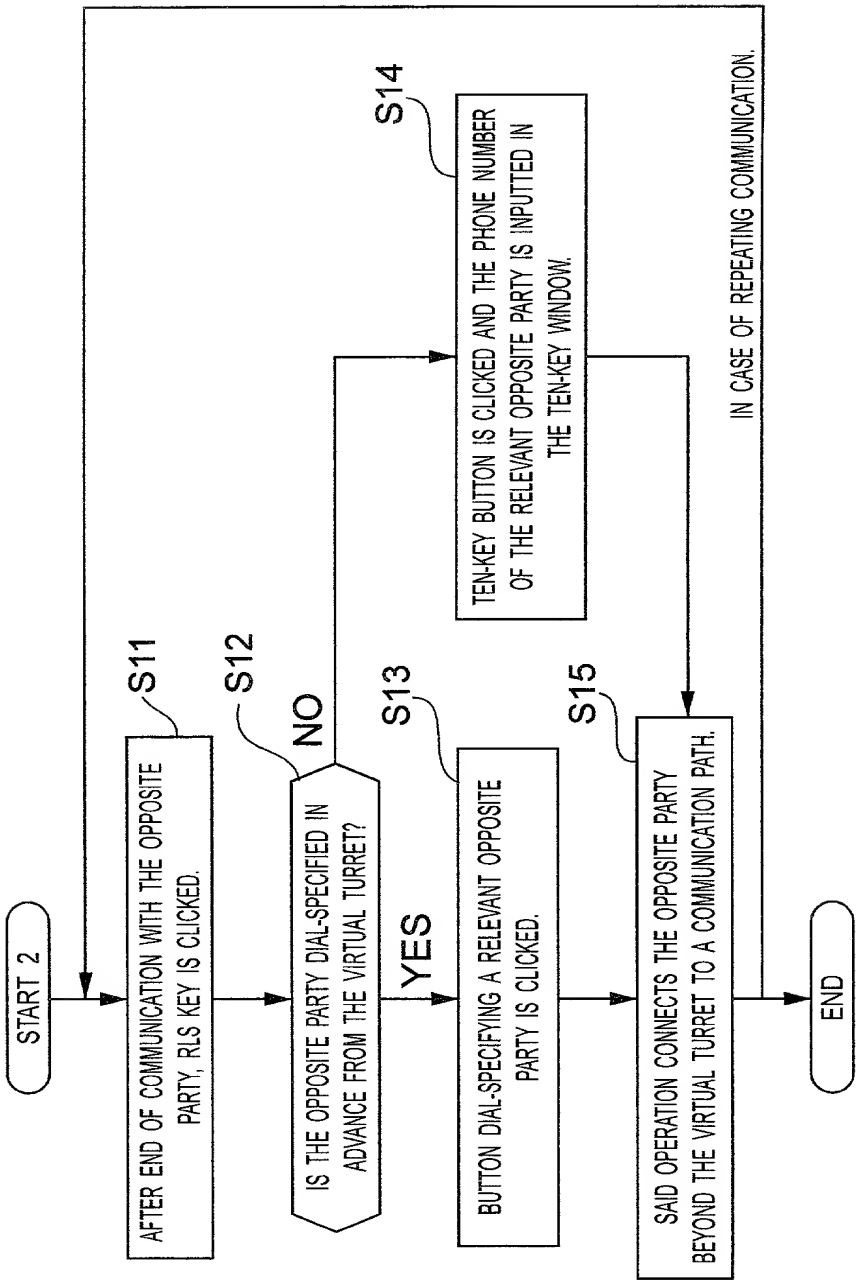

START 2
S11
AFTER END OF COMMUNICATION WITH THE OPPOSITE PARTY, RLS KEY IS CLICKED.
S12
IS THE OPPOSITE PARTY DIAL-SPECIFIED IN ADVANCE FROM THE VIRTUAL TURRET?
NO
YES
S13
BUTTON DIAL-SPECIFYING A RELEVANT OPPOSITE PARTY IS CLICKED.
S14
TEN-KEY BUTTON IS CLICKED AND THE PHONE NUMBER OF THE RELEVANT OPPOSITE PARTY IS INPUTTED IN THE TEN-KEY WINDOW.
S15
SAID OPERATION CONNECTS THE OPPOSITE PARTY BEYOND THE VIRTUAL TURRET TO A COMMUNICATION PATH.
IN CASE OF REPEATING COMMUNICATION.
END

FIG.14

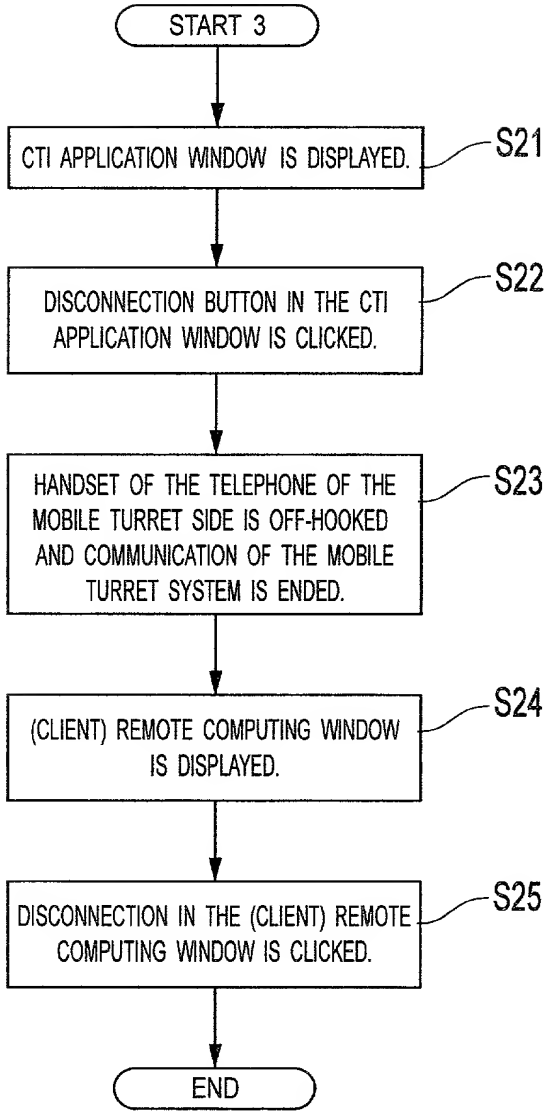

START 3
CTI APPLICATION WINDOW IS DISPLAYED.
S21
DISCONNECTION BUTTON IN THE CTI APPLICATION WINDOW IS CLICKED.
S22
HANDSET OF THE TELEPHONE OF THE MOBILE TURRET SIDE IS OFF-HOOKED AND COMMUNICATION OF THE MOBILE TURRET SYSTEM IS ENDED.
S23
(CLIENT) REMOTE COMPUTING WINDOW IS DISPLAYED.
S24
DISCONNECTION IN THE (CLIENT) REMOTE COMPUTING WINDOW IS CLICKED.
S25
END

FIG.15

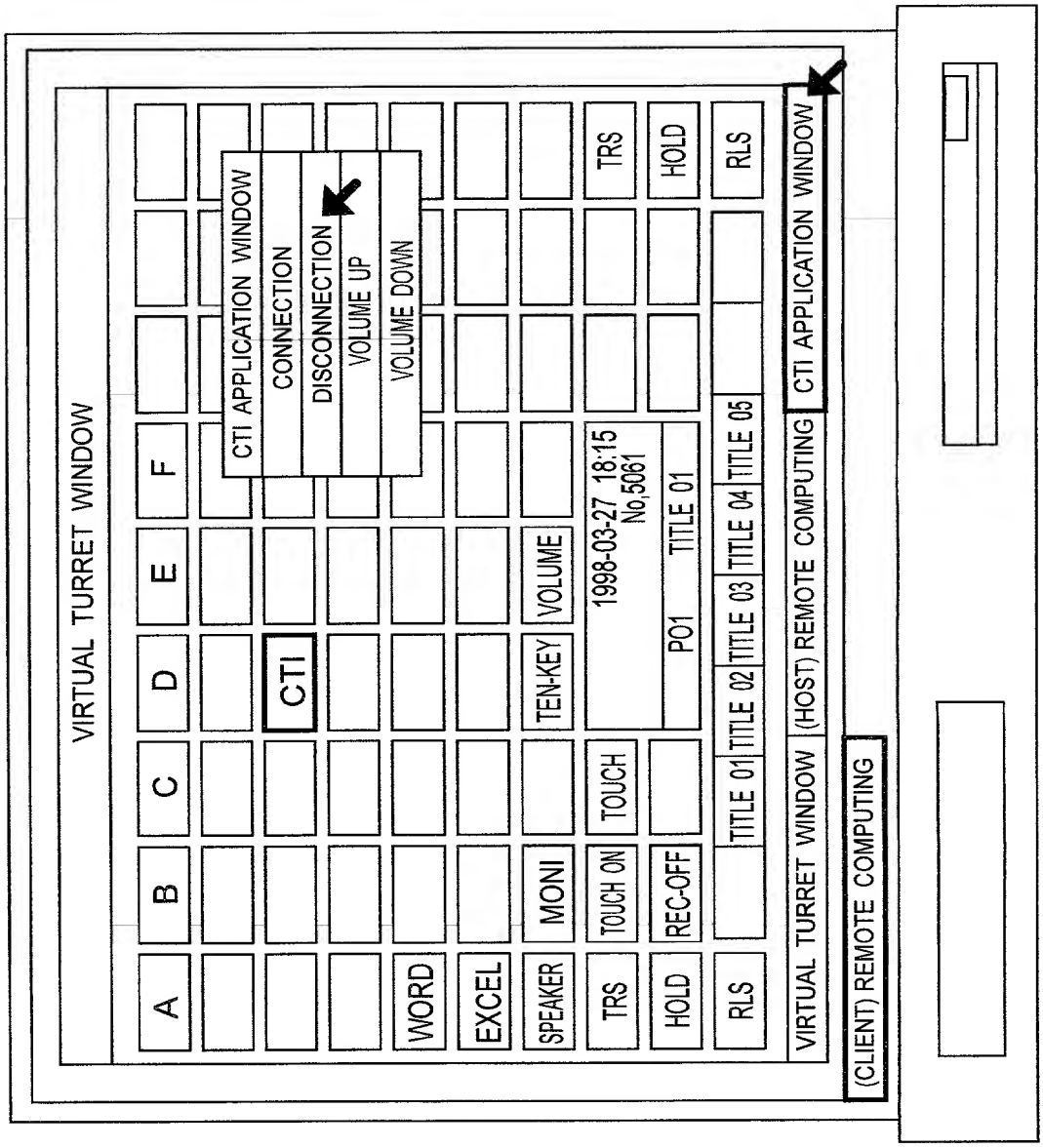
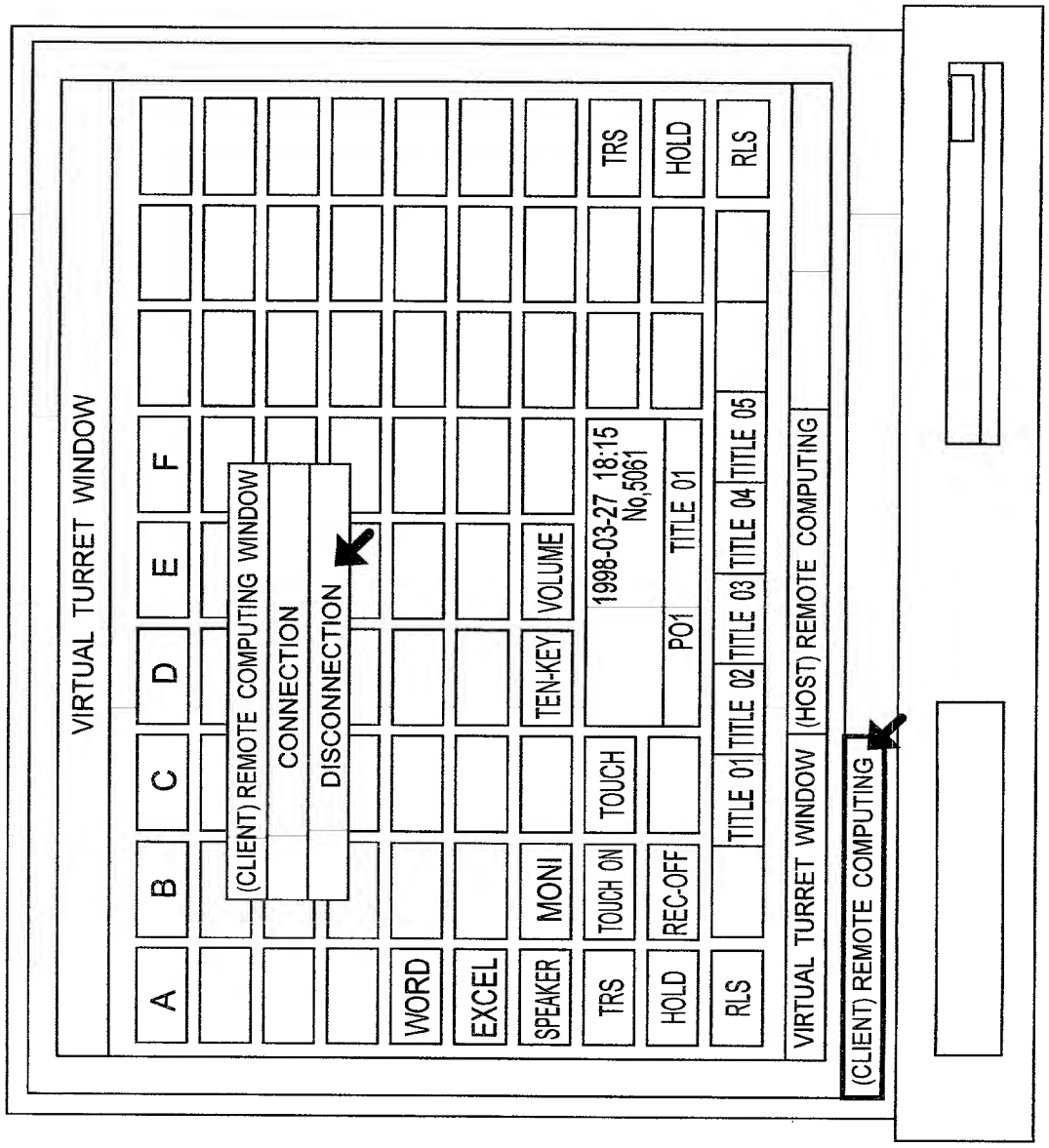

VIRTUAL TURRET WINDOW
A
B
C
D
E
F
CTI APPLICATION WINDOW
CONNECTION
DISCONNECTION
VOLUME UP
VOLUME DOWN
CTI
WORD
EXCEL
SPEAKER
TRS
HOLD
RLS
MONI
TOUCH ON
REC-OFF
TEN-KEY
TOUCH
VOLUME
1998-03-27 18:15
No,5061
PO1
TITLE 01
TRS
HOLD
RLS
TITLE 01
TITLE 02
TITLE 03
TITLE 04
TITLE 05
VIRTUAL TURRET WINDOW
(HOST) REMOTE COMPUTING
CTI APPLICATION WINDOW
(CLIENT) REMOTE COMPUTING

FIG.16


VIRTUAL TURRET WINDOW
A
B
C
D
E
F
(CLIENT) REMOTE COMPUTING WINDOW
CONNECTION
DISCONNECTION
WORD
EXCEL
SPEAKER
MONI
TEN-KEY
VOLUME
TRS
TOUCH ON
TOUCH
1998-03-27 18:15
No,5061
TRS
HOLD
REC-OFF
PO1
TITLE 01
HOLD
RLS
TITLE 01
TITLE 02
TITLE 03
TITLE 04
TITLE 05
RLS
VIRTUAL TURRET WINDOW
(HOST) REMOTE COMPUTING
(CLIENT) REMOTE COMPUTING

DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I HEREBY DECLARE:

THAT my residence, post office address, and citizenship are as stated below next to my name;

THAT I believe I am the original, first, and sole inventor (if only one inventor is named below) or an original, first, and joint inventor (if plural inventors are named below or in an attached Declaration) of the subject matter which is claimed and for which a patent is sought on the invention entitled

MOBILE TURRET SYSTEM

(Attorney Docket No. 016886/0179)

the specification of which (check one)

____ is attached hereto.

__X__ was filed on March 7, 2000 as United States Application Number or PCT International Application Number PCT/JP00/01369 and was amended on _____ (if applicable).

THAT I do not know and do not believe that the same invention was ever known or used by others in the United States of America, or was patented or described in any printed publication in any country, before I (we) invented it;

THAT I do not know and do not believe that the same invention was patented or described in any printed publication in any country, or in public use or on sale in the United States of America, for more than one year prior to the filing date of this United States application;

THAT I do not know and do not believe that the same invention was first patented or made the subject of an inventor's certificate that issued in any country foreign to the United States of America before the filing date of this United States application if the foreign application was filed by me (us), or by my (our) legal representatives or assigns, more than twelve months (six months for design patents) prior to the filing date of this United States application;

THAT I have reviewed and understand the contents of the above-identified specification, including the claim(s), as amended by any amendment specifically referred to above;

THAT I believe that the above-identified specification contains a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention, and sets forth the best mode contemplated by me of carrying out the invention; and

THAT I acknowledge the duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56.

I HEREBY CLAIM foreign priority benefits under Title 35, United States Code §119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or §365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below any foreign application for patent or inventor's certificate or of any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number	Country	Foreign Filing Date	Priority Claimed?	Certified Copy Attached?
11-62748	Japan	10 March 1999	Yes	

I HEREBY CLAIM the benefit under Title 35, United States Code § 119(e) of any United States provisional application(s) listed below.

U.S. Provisional Application Number	Filing Date

I HEREBY CLAIM the benefit under Title 35, United States Code, §120 of any United States application(s), or § 365(c) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

U.S. Parent Application Number	PCT Parent Application Number	Parent Filing Date	Parent Patent Number

I HEREBY APPOINT the following registered attorneys and agents of the law firm of FOLEY & LARDNER to have full power to prosecute this application and any continuations, divisions, reissues, and reexaminations thereof, to receive the patent, and to transact all business in the United States Patent and Trademark Office connected therewith:

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WILLIAM T. ELLIS	Reg. No.	26,874
JOHN J. FELDHAUS	Reg. No.	28,822
PATRICIA D. GRANADOS	Reg. No.	33,683

JOHN P. ISACSON	Reg. No.	33,715
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LYLE K. KIMMS	Reg. No.	34,079
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PETER G. MACK	Reg. No.	26,001
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SYBIL MELOY	Reg. No.	22,749
RICHARD C. PEET	Reg. No.	35,792
GEORGE E. QUILLIN	Reg. No.	32,792
COLIN G. SANDERCOCK	Reg. No.	31,298
BERNHARD D. SAXE	Reg. No.	28,665
CHARLES F. SCHILL	Reg. No.	27,590
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and I request that all correspondence be directed to:

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I UNDERSTAND AND AGREE THAT the foregoing attorneys and agents appointed by me to prosecute this application do not personally represent me or my legal interests, but instead represent the interests of the legal owner(s) of the invention described in this application.

I FURTHER DECLARE THAT all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

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Citizenship	Japan
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Inventor's signature	K. Nihei.
Date	'00. 09. 07

Name of second inventor	Yasuyuki KOKUBUN
Residence	Koriyama-shi, Japan
Citizenship	Japan
Post Office Address	c/o Hitachi Telecom Technologies, Ltd., 94, Aza Funabamukai, Koriyama-shi, Fukushima, 963-8826 Japan
Inventor's signature	Yasuyuki Kokubun
Date	Sep. 12, 2000
Name of third inventor	Oliver NAGASE
Residence	New York, NY
Citizenship	Japan
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Inventor's signature	Oli Nagase
Date	Sept 25, 2000